#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organization International Bureau



# 

### (43) International Publication Date 23 October 2003 (23.10.2003)

## **PCT**

## (10) International Publication Number WO 03/088232 A2

(51) International Patent Classification7:

G11B 7/14

- (21) International Application Number: PCT/IB03/01348
- (22) International Filing Date: 3 April 2003 (03.04.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0208834.2

18 April 2002 (18.04.2002)

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor: and
- (75) Inventor/Applicant (for US only): JBIRA, Arougg [MA/GB]; c/o Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA (GB).
- (74) Agent: WHITE, Andrew; Philips Intellectual Property & Standards, Cross Oak Lane, Redhill, Surrey RH1 5HA

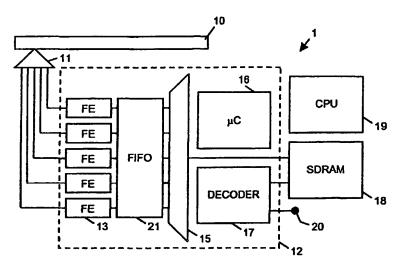
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD. SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO. SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MULTITRACK OPTICAL DISC READER



(57) Abstract: A multitrack optical disc reader (1) is disclosed comprising a multitrack optical pick up (11) for reading data from multiple tracks of an optical disc (10) and outputting the data from each track in respective data streams, and multiple first-in-first-out (FIFO) memories (21) for temporarily storing the data streams. In accordance with the present invention, wherein the pickup may selectively output data streams from less than the maximum number of tracks that can be read by the pickup, the multiple FIFO memories are provided in a common memory bank, and when less than the maximum number of tracks are being read by the pickup, the size of at least one FIFO memory in use is greater than the total available FIFO memory in the common memory bank divided by the maximum number of tracks that can be read by the pickup.





Int onal Application No

			Pui/IB 03/01348						
A. CLASSI IPC 7	FICATION OF SUBJECT MATTER G11B7/14 G11B20/10								
According to	o International Patent Classification (IPC) or to both national classific	cation and IPC							
B. FIELDS	SEARCHED								
Minimum do	ocumentation searched (classification system followed by classification sy	tion symbols)							
Documental	tion searched other than minimum documentation to the extent that	such documents are inclu	ided in the fields searched						
Electronic d	ata base consulted during the international search (name of data base)	ase and, where practical,	search terms used)						
EPO-In	ternal, WPI Data, PAJ								
			•						
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
Category °	Citation of document, with indication, where appropriate, of the re	elevant passages	Relevant to claim No.						
х	US 6 137 763 A (DAHAN SHALOM ET	1,2							
	24 October 2000 (2000-10-24)	,	1 -,-						
	abstract column 2, line 6 - line 18								
	column 3, line 25 -column 4, lin	e 16;							
Υ	claims 1,6,21,25		3						
À			5						
		-/							
		,							
	•								
	er documents are listed in the continuation of box C.	[V] 2-1							
<u> </u>		X Patent family n	nembers are listed in annex.						
	regories of cited documents:	later document public or priority date and	shed after the international filing date not in conflict with the application but						
conside	nt defining the general state of the art which is not ared to be of particular relevance.  .  .  .  .  .  .  .  .  .  .  .  .  .	invention	the principle or theory underlying the						
filing da		cannot be consider	ar relevance; the claimed invention ed novel or cannot be considered to						
which is	s cited to establish the publication date of another or other special reason (as specified)	"Y" document of particul	step when the document is taken alone ar relevance; the claimed invention						
	nt referring to an oral disclosure, use, exhibition or	document is combi	ed to involve an inventive step when the ned with one or more other such docu- nation being obvious to a person skilled						
"P" documer later the	nt published prior to the international filing date but an the priority date claimed	in the art.  8" document member of the same patent family							
	ctual completion of the international search	Date of mailing of the international search report							
7	November 2003	17/11/20	003						
Name and m	ailing address of the ISA	Authorized officer							
	European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk								
	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Annibal, P							

Form PCT/ISA/210 (second sheet) (July 1992)





## INTERNATIONAL SEARCH REPORT

Ints onal Application No PCT/IB 03/01348

		PCT/1B 03/01348			
	etion) DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.			
Y	"ALGORITHM FOR MANAGING MULTIPLE FIRST-IN, FIRST-OUT QUEUES FROM A SINGLE SHARED RANDOM-ACCESS MEMORY" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 32, no. 3B, 1 August 1989 (1989-08-01), pages 488-492, XP000029766 ISSN: 0018-8689 the whole document	3			
A	the whole document  WO 98 37554 A (ZEN RES NV) 27 August 1998 (1998-08-27) abstract page 11, line 28 -page 17, line 3; figures 2-5	1-5			

Form PCT/ISA/210 (continuation of second sheet) (July 1992)





Information on patent family members

Int onal Application No PCT/IB 03/01348

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 6137763	A	A 24-10-2000	AU	6193599 A	10-04-2000
			CA	2345321 A1	30-03-2000
			WO	0017873 A1	30-03-2000
			EP	1116232 A1	18-07-2001
			JP	2002525770 T	13-08-2002
WO 9837554	A	27-08-1998	US	5907526 A	25-05-1999
			WO	9837554 A2	27-08-1998
			WO	9837555 A1	27-08-1998
			EP	1010171 A2	21-06-2000
		•	EP	1010172 A1	21-06-2000
			JP	2001511931 T	14-08-2001
			JP	2001511932 T	14-08-2001
			US	6381210 B1	30-04-2002
			ÜŠ	6111831 A	29-08-2000

Form PCT/ISA/210 (patent family ennex) (July 1992)